Echoing emotions: reactions to emotional displays in intergroup context

van der Schalk, J.

Citation for published version (APA):

General rights
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

Disclaimer/Complaints regulations
If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: https://uba.uva.nl/en/contact, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.
Chapter 1

General Introduction
Last summer an Israeli friend and I wrote an opinion article for a Dutch Jewish magazine. It was a critical piece of writing about Israelis who comment online on news sites and who advocate support for a populist Dutch politician. Our opinion article unleashed an avalanche of strong reactions that we had not anticipated. For four consecutive weeks readers wrote emotional letters in response to it. Some of them were in favor of our position, but some of them were not. If the number of reactions we received was unexpected, the tone of voice in the letters of the people who opposed to the content of our article was even more surprising. They were truly angry.

What I want to tell with this story is not so much the content of the discussion or how it was finally resolved. What is interesting for the current dissertation is my friend’s emotional reaction to these letters, compared to my own emotional reaction. My friend was aroused by the fact that we got so much response. Moreover, he immediately wanted to snatch up his pen and write back to our opponents. He was ready to give them an earful. I, on the other hand, got quite anxious from these reactions. I had no wish to carry on the controversy and I was reluctant to write back. To be honest, I feared more angry responses.

Now what could have been the reason for our differential emotional reaction to this affair? Maybe my friend is braver than me, and I am just a coward. Possibly, but there is another explanation. That is, I am not Jewish myself, I am Christian. My friend, on the other hand, is Jewish. One reason that we wrote the opinion article together was for the symbolic reason that we come from different religious backgrounds, but still have a shared view on this affair. The people who read our article and the ones who responded to it, however, all were Jewish. This means that the anger that was directed at us came from one group that had a distinct different meaning for the two of us. For my friend, the anger came from his “home team”. As a result, he became angry. For me, the anger did not come from my home team, but from the “away team”. And I was visiting. As a result, I became frightened.

In the current dissertation we propose that the way in which individuals respond to emotions of others depends on how they categorize the other person in terms of group membership. We further propose that the reactions to emotions of others from different groups will influence the relationship between individuals from these groups. These propositions are based on the assumption that emotions—and
displays of emotion specifically—have social functions. There are two main social functions of emotional display, namely to strengthen the relational bond between individuals, and to promote goals and concerns of the individual (Fischer & Manstead, 2008). Different emotions have different meaning in terms of these two functions, and the specific meaning for the observer will also depend on the group membership of the displayer. This will determine the reaction to emotional displays accordingly.

With our studies we aim to contribute to research on emotions and intergroup relations (e.g., Smith, 1993). We also aim to show that automatic behavioral responses to facial displays of emotion can result in group emotions. Furthermore, these studies have practical importance. The issues investigated in this dissertation are relevant for societies in which various groups of people live together, who are necessarily confronted with each others’ emotions.

In the following chapter we will sketch a general theoretical outline for this dissertation by presenting emotions from a social functional perspective. We will explain theories of emotions in intergroup relations and discuss theories of emotional mimicry and contagion, resulting in an integrative framework. Finally, we will give an overview of the research presented in this thesis.

Social Functions of Emotions

Laypeople often describe emotions as intrapsychic phenomena that only have an effect on the individual who experiences the emotion. In line with this view, several scholars have described emotion expressions as direct manifestations of feelings (Darwin, 1872/1999; Ekman & Friesen, 1975). Expressions can either be innate or learned, but they are based on a neural-affective program that comprises physical and subjective experiences of the expresser. According to this view emotions have universal qualities, and all humans to some extent show similar expressions. It has indeed been shown that emotional expressions are universally recognizable across cultures (e.g., Ekman & Friesen, 1971; Ekman, Sorensen & Friesen, 1969).

Other theorists have argued, however, that facial displays are not expressions of emotions, but rather signals of social motives (Fridlund, 1994). According to this perspective, facial displays are meaningful signals for the observer, and in order to understand their meaning the observer needs to interpret the social motives of the expresser. For example, when somebody makes a rude remark to another person, the
latter person may lower his brow and stare intensely at the first person. According to
Fridlund this display does not reflect anger, but rather a signal for the first person
that he has stepped out of line and should not continue with telling unfunny jokes if
he wants to avoid a beating.

In an extensive review by Parkinson (2005) the emotion-expression and motive-
communication account of facial display have been set against each other. According
to Parkinson, the emotion-expression account is limited by the fact that there is no
evidence that any facial display can unambiguously be connected to specific emotions
(e.g., Russell, 1994). The motive-communication account, however, suffers from the
fact that it is underspecified. The model can account for the fact that facial displays
can be facilitated as well as inhibited by the presence of an audience (e.g., Jakobs,
Manstead & Fischer, 1999; Jakobs, Manstead & Fischer, 2001), but does not specifically
predict under what circumstances inhibition or facilitation occurs. In that way, the
motive-communication account provides no more than post hoc explanations for facial
displays in particular circumstances. The main problem of the motive-communication,
however, is that it is too rigorous in its claim that facial displays do not reflect
emotions (Frijda, 1995). Emotions automatically involve behavioral intentions (Frijda &
Tcherkassof, 1997). In that sense, facial displays of emotions are informative as signals
of social motives. In other words, there is no need for a strong dichotomy between
both accounts. If emotions involve behavioral intentions and social motives, the display
of these emotions can communicate these intentions and motives to an attentive
observer. In this way, facial displays can be both direct expressions of felt emotions
(Ekman & Friesen, 1975), and “social tools” that are used in social encounters
(Fridlund, 1994).

In line with this perspective, it has been argued that emotions often have social
functions (Keltner & Haidt, 1999). Keltner and Haidt assume that all people are social
by nature, and that emotions are portrayed as a means to coordinate interactions and
to address social problems that arise in interactions. Emotions are therefore thought
to be functional at four different levels of social life: individual, dyadic, group and
cultural. For example, at the level of the dyad emotions provide information about
the other person and thereby coordinate the social interaction. In addition, emotions
evoke complementary and reciprocal emotions in dyadic interaction. This may help
individuals to respond appropriately to events in the environment. At the level of the group, communal feelings can be enhanced when group members experience similar or collective emotions. In contrast, emotions can sharpen the boundaries between different groups, when negative emotions to non-group members are expressed. In this way, emotions are functional as these resolve group identity related issues.

Extending this idea, Fischer and Manstead (2008) identified two main social functions of emotions: first, emotions contribute to the creation and maintenance of social bonds between individuals; second, emotions function to preserve or promote the self or the social group that one belongs to. In line with the bonding function of emotions, for example, emotions are more often expressed and shared between individuals who have an intimate relationship (Clark, Fitness & Brisette, 2004; Rimé, Mesquita, Philippot, & Boca, 1991), and relationships benefit from sharing of both positive and negative emotions (e.g., Clark & Taraban, 1991). In line with the self-promotional social function of emotions, expressions of anger are aimed at forcing another person to change his or her behavior, whereas expressions of contempt signal derogation and rejection (Fischer & Roseman, 2007). In this way, the self is promoted because by expressing these emotions control over the other person is exerted (anger), or the other person is socially excluded (contempt). This could also be called a distancing function of emotions.

Another model that further specifies the social functions of emotion in the realm of decision making behavior is the Emotion as Social Information (EASI) Model (Van Kleef, 2009; Van Kleef, De Dreu & Manstead, 2010). This model predicts that, because social situations are often ambiguous, emotions of others can be used as sources of information to understand these situations. According to the model, discrete emotions provide concrete meaning about the social world. The model therefore predicts that the interpersonal effects of emotions are different for each emotion. For example, happiness will increase cooperation in a cooperative context (e.g., Krumhuber, Manstead, Cosker, Marshall, Rosin & Kappas, 2007), because it signals affiliation. Anger on the other hand, will increase competition in a cooperative context (e.g., Barsade, 2002), because it signals aggression. The model further predicts that emotions have differential effects depending on the cooperative-competitive nature of the setting. For example, happiness will increase competition in a competitive context (Van Kleef,
De Dreu & Manstead, 2004), because in that particular situation happiness signals opportunity for gain. In contrast, anger increases cooperation in a competitive setting (Van Kleef, De Dreu & Manstead, 2004), because in that particular situation it signals dominance. Although the EASI model is elaborate and the predictions that are derived from it are more concrete than other social functional accounts, it mainly applies to interactions where individuals have an interdependent relation that can be defined in cooperation-competition. We argue, however, that emotions also have an effect on social behavior in situations where direct cooperation or competition is absent, for example in situations where individuals simply share or do not share group membership.

One of the central assumptions in the current dissertation is that emotions are indeed social signals. We argue that emotional displays are expressed with intent, and within context. As such, emotional displays serve the social motives of the expresser. These motives can be summarized according to two principles: emotions can have a bonding function, or a distancing function (Fischer & Manstead, 2008). We argue that these social functions determine responses to emotions of others. The functions depend on the type of emotion displayed and on the social context in which these occur. We further argue that group membership is an important aspect of the social context of emotions. Previous research has shown that group membership has a profound impact on emotional experience, for example in the area of intergroup emotions (Smith, 1993, 1999).

**Intergroup Emotions Theory**

Imagine that a colleague at the department is happy, because she just brought in a big client, or because she received a big grant from a research council. Upon hearing this news we may also become happy. We may sincerely empathize with her happiness, because we consider it a just reward for her hard work, but we may also share her happiness, because her success reflects positively on the rest of the department. Because we feel connected to the department her success reflects positively on us too. It has indeed been found that individuals “bask in reflected glory” of successful others by emphasizing their connectedness with these others, even when there was no personal contribution to the success (Cialdini et al., 1976). If we extend this finding to emotions, this means that we may experience happiness even though there was no personal contribution to the work delivered, and the obtained success...
has no immediate effect upon our personal goals. The happiness expressed by the colleague is a signal about the condition of the group, and the group is doing well. This example illustrates that emotions do not only have meaning at an interpersonal level, but can have meaning at a group level as well.

Several theorists and researchers have investigated the interplay between emotions and group identity. A theory that stresses the role of social identity in the elicitation of emotions and the role of emotions in intergroup relations is Intergroup Emotion Theory (IET) (Smith, 1993). The core assumption of IET consists of two propositions. The first proposition is that when one’s social identity is salient, people appraise events in terms of the goals and concerns of their group, and experience emotions that are the result of this group-based appraisal. The second proposition of IET is that intergroup attitudes, prejudice and discriminatory behavior are better understood as (group-based) emotions that people experience toward other groups.

Group based emotions. The first proposition of IET combines social identity theory and self-categorization theory (Tajfel & Turner, 1986; Turner, Hogg, Oakes, Reicher & Wetherell, 1987) with appraisal theories of emotion (e.g., Arnold, 1960; Frijda, 1986; Lazarus, 1966; Roseman, 1984; Scherer, 2001). Firstly, social identity theory assumes that individuals have the tendency to categorize the social world into groups (Tajfel & Turner). This categorization process includes the self, and the social world is categorized into groups that one belongs to, ingroups, and groups that one does not belong to, outgroups. Importantly, when self-categorization is made salient, group identity is emphasized as part of one’s personal identity (Turner et al., 1987). For example, at work the social identity of the department is salient, while at home the social identity of being a family member is salient, and individuals may behave quite differently in these situations. Secondly, appraisal theories propose that emotions are experienced in reaction to events that affect goals and concerns of the individual (e.g., Arnold, 1960; Frijda, 1986; Lazarus, 1966; Roseman, 1984; Scherer, 2001). For example, if a colleague has the goal to be successful in her career and she brings in a big client or receives a grant from a research council, this achievement helps the colleague’s long term goal, and because of this appraisal she experiences happiness.

Taken together self-categorization theory and appraisal theories imply that when social identity is salient the group becomes part of the self, and the concerns
and goals of the group become part of one’s personal goals and concerns. Thus, when social identity is salient and an event occurs that affects the goals and concerns of the group, individuals will experience emotions based on their group identity. In our example, the goal of the department is to be a successful business or research group. If our work identity is salient, we appraise the success of our colleague as an achievement of our group goal, and because of this group-based appraisal we will feel happy too. These emotions are therefore called ‘group-based’ emotions, and can even be experienced when events have no direct consequences for the individual (Smith, 1993; 1999).

Several studies have supported the idea that emotions can be experienced as a result of group membership (e.g., Smith, Seger & Mackie, 2007). It has for example been shown that when a value-related social identity is made salient and individuals perceive strong support for the values of the ingroup, individuals will experience more anger towards an outgroup that expresses an opposing opinion and will also express a greater tendency to confront this outgroup (Mackie, Devos & Smith, 2000). It has similarly been shown that individuals experience group-based anger when their group has been treated unfairly (Pennekamp, Doosje, Zebel, Alarcon Henriquez, 2009; Van Zomeren, Spears, Leach & Fischer, 2004). These findings show that social identity and group-based appraisal of group-strength or unfair treatment determine emotional responses and corresponding action tendencies.

Support has also been found for the idea that group-based emotions can be experienced when an individual does not have a personal role in the emotion eliciting event. For example, individuals can experience guilt when their own group is biased towards another group, even when they are personally not biased against this group (Doosje, Branscombe, Spears & Manstead, 1998). Individuals can also experience guilt when they are reminded of historical wrongdoings of their group (Doosje et al., 1998; Zebel, Doosje & Spears, 2009). Moreover, the emotions that individuals experience as a result of their group history can be positive or negative depending on how the historical context is framed, and the extent to which these emotions are experienced are enhanced by indirect (i.e. family) involvement (Zebel, Pennekamp, Van Zomeren, Doosje, Van Kleef, Vliek, & Van der Schalk, 2007). These findings suggest that group-based guilt is the result of concerns about one’s group image.
Furthermore, group-based emotions can be directed at another group and can be expressed at the expense of this other group. Individuals may experience *schadenfreude*—joy at the loss of another—when a competing group suffers defeat (Leach, Spears, Branscombe & Doosje, 2003). Schadenfreude is the result of feelings of inferiority of one’s own group (Leach et al., 2003), combined with feelings of resentment towards another group (Leach & Spears, 2008). This again demonstrates that group-based emotions serve the goal of promoting one’s group image. Taken together, these studies show that individuals experience emotions as a result of their group-identities, and that group-concerns determine the nature and intensity of these emotions.

The emotions that individuals experience as based on their group-identity depend on the specific social category that is salient in a given context. Self-categorization theory implies that self-definition is determined by the salience of social identities. Some situations may be emotionally ambiguous, because this situation has different emotional consequences for various social groups. Particularly in these situations, the salience of specific social identities may determine the extent to which group-based emotions are experienced. This is exactly what was found in a series of studies by Dumont, Gordijn, Wigboldus and Yzerbyt (e.g., 2001, 2003, 2006). These authors showed that unfair treatment of other individuals leads to more anger when these others are categorized as ingroup members, compared to when these others are categorized as outgroup members (Gordijn, Wigboldus & Yzerbyt, 2001). This group-based anger increases anger-related action tendencies and is more pronounced when people are high identifiers with the social group of interest (Yzerbyt, Dumont, Wigboldus & Gordijn, 2003). Furthermore, the appraisal of the event in terms of perceived unfairness determines the effect of group membership on felt anger (Gordijn, Yzerbyt, Wigboldus & Dumont, 2006). In addition, these effects are not restricted to anger. It has for example been found that Europeans reported more fear and fear-related action tendencies when reminded of the 9/11 terrorist attacks, when a social identity that included Americans (i.e. Westerners) was salient, compared to when their European identity was salient (Dumont, Yzerbyt, Wigboldus & Gordijn, 2003). Together and in line with IET, these studies show that self-categorization determines group-based appraisals of emotion-eliciting events, and emotional reactions when group identity is salient.
Intergroup emotions as prejudice. Traditionally, prejudice is conceptualized as negative attitudes toward other groups. The second proposition of IET, however, is that prejudice should not be defined in terms of general valence-based (positive-negative) attitudes, but rather in terms of specific emotions felt towards these other groups (Smith, 1993, 1999). According to IET, appraisals of events that involve intergroup interaction and emotions that are directed at other groups provide more specific information about intergroup relations. Furthermore, emotion-related action tendencies can result in discriminatory behavior. This means that prejudice and discrimination only occur when an intergroup interaction involves negative appraisals, negative emotions and negative emotion-related action tendencies. Thus, the nature of intergroup relations may vary with the emotions that are experienced in each situation. For example, a Dutch person may go on a holiday to the Turkish Riviera and enjoy the hospitality of local people and the delights of Mediterranean cooking. In this situation, no negative emotions are felt, and interactions with Turkish people may be pleasurable for both sides. Once back home, however, this person may fear for his Turkish neighbor, and as a result may vote for an anti-Islamic political party.

The proposition that intergroup emotions are determinants of intergroup relations received some initial support in a study that showed that emotions experienced towards ethnic minorities are differentially related to attitudes towards these groups (Dijker, 1987). In the Netherlands, positive mood had a stronger (positive) effect on attitudes towards Surinamese people than towards Turkish or Moroccan immigrants, while irritation and concern had a stronger (negative effect) on attitudes towards Turkish and Moroccan immigrants than towards Surinamese people. This study confirms that prejudice is more than mere negative affect. Individuals experience different emotions in reaction to different stereotyped groups, and these emotions are related to attitudes towards these groups.

Another line of research also assumes that different groups elicit specific emotions. The sociofunctional approach to prejudice predicts that the threat that other groups pose to the ingroup evokes discrete emotions toward these groups (Neuberg & Cotrell, 2002). In line with this reasoning, it has been shown that different groups that pose different threats—whether based on ethnicity or moral values—elicit different patterns of emotions (Cotrell & Neuberg, 2005). For example, European Americans
reported anger, disgust and fear towards African Americans; they mainly reported pity towards Native Americans; and they reported no threat-related emotions towards Asian Americans. Notably, even though these groups elicited differential patterns of emotions, participants reported equal levels of negative attitude towards these groups. Similarly, it was found that different groups that are outgroups for moral reasons—gay men, activist feminists, and fundamentalist Christians—elicited differential patterns of emotions, while level of negative attitude was equal for these groups. Furthermore, the patterns of emotions were, at least in part, mediated by specific threats that these groups were believed to pose to the ingroup, and groups that elicited similar threat profiles also elicited similar emotion patterns. In line with IET, this study shows that specific emotions provide more information about the relation between groups, than valence-based attitudes.

Another model that attempts to predict stereotypes beyond the dichotomy of positive-negative evaluations is the stereotype content model (SCM) (Fiske, Cuddy, Glick & Xu, 2002). The model distinguishes two primary dimensions on the basis of which groups are evaluated: warmth and competence. Emotions play an important part in this model, as the model predicts that the different combinations of these dimensions are associated with four distinct emotions that can be felt towards different groups: high warmth and high competence are associated with admiration, high warmth and low competence with pity, low warmth and high competence with envy, and low warmth and low competence with contempt. In line with this model, it has been found that various groups are clustered in this two-dimensional domain, and that these groups elicit the predicted emotions (Fiske et al., 2002). Elderly people, for example are rated as low on competence, but high on warmth, and elicit feelings of pity, while rich people are rated high on competence, but low on warmth and elicit envy.

An extension of the SCM, the Behaviors from Intergroup Affect and Stereotypes (BIAS), predicts that perceived warmth and competence are not only associated with emotions, but also with distinct behavioral tendencies toward groups (Cuddy, Fiske & Glick, 2007). Warmth is associated with active facilitation and active harm, while competence is associated with passive facilitation and passive harm. In line with this model and the SCM, emotions have been shown to mediate the relation between the warmth-competence domain and corresponding behavioral tendencies toward groups.
The SCM predicts that some outgroups receive extreme negative reactions, like homeless people or drug addicts. These groups are rated low on competence and low on warmth and elicit contempt, or even disgust. Evidence from social neuroscience indeed shows that brain areas that are associated with disgust (the insula, and amygdala) are more activated when people watch pictures of these groups (Harris & Fiske, 2006). In addition, a brain area that is associated with social cognition (the medial prefrontal cortex, mPFC) was not activated while looking at pictures of the low competence low warmth group, whereas it was activated when looking at pictures of other groups in the warmth-competence domain (Harris & Fiske, 2006). This indicates that some outgroups evoke extreme negative emotions, and even suggests that they are perceived as less than human.

This relates to another line of research that investigates ‘infra-humanization’ (e.g., Leyens et al., 2000). These authors suggest that outgroups are attributed a lesser degree of human essence. Because certain emotions are considered more uniquely human than others, they hypothesized that these types of emotion (‘secondary’ emotions, like sorrow and admiration) are attributed more to the ingroup than to the outgroup. In line with this reasoning, it has indeed been found that when participants have to list traits that they associate with the outgroup and the ingroup, secondary emotions (positive as well as negative) are more likely to be listed as traits that belong to the ingroup (Leyens et al., 2001). In a related study participants forecast the emotions that the ingroup and the outgroup would experience as a result of a win or loss in an upcoming soccer match. Results showed that participants predicted that ingroup secondary emotions (both positive and negative) would last longer than outgroup secondary emotions (Gaunt, Sindic & Leyens, 2005). Lastly, when emotion attribution was implicitly measured with a reaction time measure, stronger associations between the ingroup and secondary emotions, and between the outgroup and primary emotions were found (Paladino et al., 2002). The results of these studies extend the proposition of IET that outgroups elicit specific patterns of emotions, and show that the attribution of emotions to ingroup and outgroup reflects a persistent form of prejudice.

Social Functions of Intergroup Emotions. Together the aforementioned theories and studies show that social identity and social categorization processes
affect emotions and emotion-related action tendencies in intergroup contexts. We have argued that emotions have social functions. In light of these, group-based emotions serve a relationship enhancing function. By expressing group-based emotions, the individual signals that the concerns of the group are internalized as personal concerns. In this way, the individual shows emotional involvement to the group, and support to other group members who may feel the same. It could further be argued that negative intergroup emotions directed at an outgroup serve a distancing function. By expressing group-based emotions toward an outgroup, the individual communicates specific feelings toward this group, which provide more information than a valence-based attitude. In this sense, intergroup emotions are exemplary of the social functions of emotions at a group level.

Emotional Contagion

IET mainly focuses on group-related concerns that affect the appraisal of antecedent events. There may be other routes to intergroup emotions, however. Research shows that individuals also have relatively immediate emotional reactions to emotional displays of others. Specifically, Emotional Contagion Theory (ECT) studies the phenomenon that people automatically ‘catch’ emotions displayed by others (Hatfield, Rapson & Cacioppo, 1993; 1994). In light of the social functions of emotions and the findings regarding IET, we argue that group membership may influence these immediate reactions to emotional displays of others.

Emotional contagion implies that perceived expressions of emotions produce similar behaviors and feelings (e.g., Hatfield, Rapson & Cacioppo, 1993; 1994; Hsee, Hatfield, Carlson & Chemtob, 1990; Hsee, Hatfield & Chemtob, 1992; see also Neumann & Strack, 2000; Wild, Erb & Bartels, 2001). The theory proposes that emotional contagion has effects at various levels of physiological, psychological, and behavioral functioning. It can be the result of conscious cognitive processes, unconditioned and conditioned responses, and automatic imitation of perceived emotional behavior. This latter process is more specifically defined as primitive emotional contagion, and has received most attention. Primitive emotional contagion occurs as a two-step process. First, the perception of emotional displays elicits imitation of these expressions. This process is called emotional mimicry. Next, emotional mimicry activates an afferent feedback mechanism that results in the experience of the same emotion. This outcome
is what we refer to as emotional contagion. In this way, individuals in interaction converge behaviorally and their feeling states become aligned. According to ECT, this phenomenon contributes to the understanding of other peoples’ emotions.

Because ECT predicts a causal relation between emotional mimicry and emotional contagion, there are both conceptual and empirical reasons to distinguish these phenomena. In the current thesis emotional mimicry is reserved for imitation of emotional behavior (i.e. mimicry of facial displays), while emotional contagion is used to refer to concordant feeling states. We further use emotional convergence (and its antonym emotional divergence) to refer to both emotional mimicry and contagion in a general sense.

Evidence for emotional mimicry and contagion has for example been found in a study by Lundqvist and Dimberg (1995). Participants were exposed to slides of seven different emotional displays: anger, disgust, fear, happiness, sadness, surprise and happiness. Muscle activity of four different facial muscles was measured with facial electromyography (EMG), and participants also reported emotional experiences. Results showed that participants indeed mimicked facial displays of all emotions, except fear. Participants also reported feeling states that were concordant with the perceived stimuli for all emotions, except surprise. The results were thus largely in line with ECT.

The influence of emotional contagion in interactions on group performance has been investigated in the domain of work-related groups (Barsade, 2002). Participants cooperated in small workgroups to perform a task. In all conditions a confederate was present, who varied behavior in terms of pleasantness and energy (for example cheerful enthusiasm, or depressed sluggishness). It was found that both group and individual emotions were influenced in the direction of the behavior of the confederate. For example, people became energized and felt pleasant when the confederate was cheerful, and became downcast and felt unpleasant when the confederate was depressed. It was also found that emotional contagion of positive mood improved cooperation, reduced conflict and enhanced performance on the group task. Along similar lines, it has been shown that emotions of team leaders have an effect on emotions of work groups (Sy, Côté & Saavedra, 2005). Positive leaders contribute to a positive atmosphere within the group and improve coordination. Negative leaders contribute to a negative atmosphere, but also stimulate team members to put more
effort into the task and enhance performance. Similar emotional contagion effects have been found on consumer behavior. For example, smiling behavior of service employees has an effect on the smiling and mood of customers, and this increases the perceived quality of the service delivered (Barger & Grandey, 2006). These studies show that emotional contagion has profound influence on social behavior in organizational and work settings.

Several factors may influence the strength of emotional mimicry and emotional contagion. First, there are individual differences in sensitivity and empathy that have been shown to impact emotional mimicry and contagion. For example, it has been reported that people who are more sensitive to their bodily states show more emotional contagion (Laird et al., 1994). Furthermore, people who have a strong empathic disposition are more likely to mimic emotional displays of anger and happiness (Sonnby-Borgström, Jönsson, & Svensson, 2003).

Second, emotional mimicry and emotional contagion can be enhanced by affiliation motives. In one study, participants were told that they would participate in an experiment that could be painful (Gump & Kulik, 1997). When hearing about the experiment another person was present. Participants facing the painful experiment were more susceptible to mimicry and contagion of anxiousness that was displayed by the other person. This shows that emotions of others may be particularly relevant in threatening situations. In such cases, when need for social support is high, emotional contagion may reflect an affiliation strategy.

Third, prior attitudes toward the displayer appear to have an effect on the emotional reaction toward expressions. In one study, participants watched silent video excerpts of President Ronald Reagan giving a speech. Political supporters of Reagan reported more fear when Reagan showed facial displays associated with fear/evasion or anger/threat, and reported more warmth when Reagan showed facial displays of happiness/reassurance. Self-reported feelings of political opponents of Reagan however, were not influenced by Reagan’s displays (McHugo et al., 1985). Similarly, it has also been shown that mimicry of sadness and happiness displays is attenuated when people have a negative prior attitude towards the displayer (Likowski, Mühlberger, Seibt, Pauli, & Weyers, 2007). Furthermore, it has been shown that outgroup sadness displays were mimicked to a lesser extent than ingroup sadness displays (Bourgeois & Hess, 2008).
Taken together, these studies show that emotional mimicry and contagion can be influenced by empathic dispositions and the relationship between the displayer and the observer. We have argued that the social functions of emotions—in terms of relationship enhancement and promotion of the self or the ingroup—determine reactions to emotions of others. In line with the bonding function of emotion, emotional contagion promotes affiliation, especially when need for social support is high. Also in line with this function, when individuals are empathic or when they have a positive attitude toward the displayer, emotional contagion is enhanced. In line with the distancing function of emotion, emotional mimicry and contagion decrease when individuals have a negative attitude toward the displayer.

Moreover, the distancing function of emotions suggests that emotions can be used as a strategy to promote distinctiveness between individuals. Findings from other research suggest that when a comparison between the self and the other is made salient, individuals may show behavioral contrast to perceived behavior of others (Dijksterhuis & Bargh, 2001). It has for example been shown that in a salient intergroup context, participants color pictures more messily when neatness is a stereotype that is associated with the outgroup (Spears, Gordijn, Dijksterhuis & Stapel, 2004). When applied to emotional displays, this would mean that individuals should report contrasting emotions when a comparison is made between the self and the person who expresses the emotion. This is exactly what was found in a study that investigated the influence of comparison on mood states. Participants who focused on dissimilarities became more negative in response to positive stimuli, and more positive in response to negative stimuli (Epstude & Mussweiler, 2009; see also Weisbuch & Ambady, 2008). These findings suggest that the distancing function of emotions can lead to emotional contrast.

In the current thesis, we investigate the influence of intergroup context on emotional convergence and divergence. We argue that the social functions of emotions interact with the intergroup context in determining the reactions to emotions of others. We predict that shared identity promotes an affiliation function and facilitates emotional mimicry and contagion, while non-shared identity promotes a distancing function and impedes emotional mimicry and contagion. The distancing function may also lead to contrasting emotions. Furthermore, readiness to convergence or divergence
emotionally will also depend on the type of emotion displayed. Happiness, especially, signals readiness to play or to affiliate (Fridlund, 1994). We argue that happiness, as an affiliation signal, may transcend group boundaries. Because of this, individuals may converge to the happiness of others with whom they do not share group membership. This may be especially pronounced when individuals are motivated to affiliate with others, for example when they are under threat (Gump & Kulik, 1997).

Aims and Hypotheses

The current dissertation aims to show that reactions to emotions of others are influenced by intergroup context and social categorization processes. We argue that emotions of others elicit differential emotional reactions, depending on the type of emotion perceived and the intergroup context. The nature of these reactions can be convergent (emotional mimicry and contagion), or divergent. We hypothesize that social categorization of self and other in terms of group membership determines whether emotional convergence or divergence occurs. This proposition is based on the assumptions that emotional expressions are social signals that provide meaning about the interaction, the immediate environment, or both (Parkinson, 2005), and that the group membership of the expresser presents a social context that influences the meaning of the emotional expression for an observer (Smith, 1993). Shared group membership will imply similar circumstances, while differential group membership may imply different circumstances or even conflicting interests. The central hypothesis that we test is that people converge towards emotions of the ingroup, while they diverge from emotions of the outgroup.

We further argue that the reaction to others’ emotions depends on the type of emotions displayed. When emotions signal affiliation (e.g., displays of happiness), individuals may become motivated to return this signal, and emotional convergence may transcend group boundaries in such a way that people will even converge to emotions of outgroup members. This in turn may improve the relation between groups. Especially when individuals are motivated to affiliate, emotional convergence to outgroup happiness may be enhanced.

A second aim of the current dissertation is to show that reactions to emotions of others influence intergroup relations. Sharing of emotions is hypothesized to improve the relation between individuals (Fischer & Manstead, 2008; Hatfield et al.
1994). We assume sharing of emotions, in terms of mimicry and emotional contagion, occurs at the group level, and is more likely within groups (between ingroup members) than between groups (between outgroup members). We therefore hypothesize that expressions of emotions will only serve an affiliating function when individuals share group membership. When individuals do not share group membership, emotions function to keep them at distance or to drive them further apart.

**Overview**

This thesis has three empirical chapters that investigate these general premises. Chapter 2 investigates the effect of social categorization into ingroup and outgroup on emotion recognition and emotional bonding. To this end, a stimulus set of emotional displays was created. This set—the Amsterdam Dynamic Facial Expression Set abbreviated ADFES—contains filmed facial displays of nine different emotions that were highly standardized. Both North-European and Mediterranean (Turkish / North-African) models were included. Turkish and North-African cultures represent salient ethnic groups in the Dutch context. With this set we tested our hypothesis that the recognition of emotions depends on group membership of the displayer. We also hypothesized that emotional displays of ingroup members would enhance emotional bonding with the ingroup, while emotional displays of outgroup members would not have a positive effect on bonding.

Chapter 3 more specifically investigates the mechanisms of automatic responses to emotional displays. In this chapter we describe two studies that investigate the effect of social categorization on automatic imitation of emotional displays and on self-reported emotional contagion. We hypothesized that when group identity was not shared this would decrease mimicry of emotional displays. We also predicted that this would depend on the meaning of the emotion displayed. Happiness is an emotion that signals affiliation. We therefore hypothesized that mimicry of happiness displays would be independent of group membership. We further hypothesized that when there was no shared group identity, emotional displays would elicit divergent emotions. For example, we predicted that outgroup anger displays would elicit fear, and that outgroup fear would elicit aversion. As in Chapter 2, we investigated how responses to emotional displays are related to bonding. We predicted that viewing emotional displays of the ingroup would increase liking of the ingroup models, and that this would be mediated
Chapter 4 presents research that investigated the premise that responses to emotional displays can overcome group boundaries when individuals have an increased motivation for affiliation. To increase need for affiliation we put participants in a threatening situation, by reminding them of their mortality. We hypothesized that when people have an increased need for affiliation, they will converge even to emotions of the outgroup, but only when the outgroup expresses an emotion that signals affiliation (i.e., happiness). We further hypothesized that emotional convergence toward the outgroup would have a positive effect on bonding with the outgroup.

In Chapter 5 the findings are discussed in light of the aforementioned theories. The studies give insight into the automatic behavioral and experiential responses to emotional displays, the interplay between social identity and emotions, and the relation between emotion sharing and emotional bonding. Strengths and limitations of the methods used are discussed, and directions for future research are given. Although the studies in the dissertation were conducted with lab-based paradigms, the findings have important practical implications. We will highlight these and will give recommendations for policy makers.